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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/082,360      | 02/26/2002  | Hyun Kim             | P56639              | 2437             |

7590 11/22/2006  
Robert E. Bushnell  
Suite 300  
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Washington, DC 20005

EXAMINER

GIBBS, HEATHER D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2625

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/082,360             | KIM, HYUN           |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Heather D. Gibbs       | 2625                |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 9-16, 19, 21-25, 28 is/are rejected.
- 7) ☒ Claim(s) 4, 6, 8, 17-18, 20, 26-27, 29-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 10/02/2006 have been fully considered but they are not persuasive. Applicant argues the black path is in separate document to be scanned. The examiner finds this limitation to be taught in Tsai Col 2 Lines 57-63 where the document 36 has a white background with a test paper that is a black bias 37. Second, Applicant argues only a single value is used in the comparison for error...rather than a plurality of values. In Col 4 Lines 45-48, Tsai teaches, one value is used at a time however a plurality of values is compared against a predetermined gate value. Third, Applicant argues In Tsai, the top edge line is not necessarily used as P 1, P2, P3 is a boundary point between the black and white region in general, but does not necessarily look at from a top edge line. Examiner finds this means, as though not mandated, the top edge line can be used as boundary point between the black and white regions in general. Fourth, Applicant argues, Tsai does not look to reading the first pixel by reading the white shading plate of the scanner, but concerns the document included for scanning. Upon further review, the Examiner finds this limitation to be taught in Col 3 Lines 5-15. Fifth, Applicant argues, no adjustment is given. Examiner would like to point applicant's attention to Col 1 Lines 22-31. Sixth, Applicant argues No specific disclosure is made concerning the gate value in Tsai and whether that specifically concerns the pattern of the black patch. Specific Disclosure is given at Col 2 Line 64-Col 3 Line 15 and Col 4 Line 45-56. Seventh, Applicant argues, the apparatus does not necessarily include the memory for predetermined value. However, evidence of memory can be

found in Col 2 Line 64-Col 3 Line 15 and Col 4 Line 45-56. Eighth, See Seventh argument. Ninth, see Fifth argument. Tenth, See First and Second Arguments.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3,5, 9,11-16,19-24,27 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsai (US 6,734,998).

For claim 1, which is representative of claims 15 and 22, Tsai teaches an apparatus for correcting a scanning error in a flatbed scanner, the apparatus comprising: a white shading plate having a black patch (Col 2 Lines 57-59); a reading module accommodating reading of said white shading plate and said black patch (Col 2 Lines 53-57); and a controller comparing information of said black patch read by said reading module with a predetermined reference value to correct the scanning error in the flatbed scanner (Col 2 Lines 64-Col 3 Lines 15 and Col 4 Lines 45-56).

Regarding claim 2, which is representative of claims 16 and 27, Tsai discloses wherein the information of said black patch comprises at least one of information of the

edge lines of said patch read through said reading module and information of a plurality of intervals of said black patch, and the predetermined reference value includes a plurality of values (Col 3 Lines 15-26).

For claim 3, which is representative of claim 20, Tsai discloses controller correcting a scan start line using the result of comparing a predetermined value with a number of pixels corresponding to an interval by which said reading module is moved from a top edge line of said black patch read through said reading module to a predetermined point (Fig 5; Col 3 Lines 15-20).

Considering claim 5, which is representative of claims 19, Tsai teaches said controller setting a scan region based on the detection of a rightmost edge line of said black patch through said reading module and a position of a first pixel being read obtained during reading of said white shading plate to correct a scanning error for the position of the first pixel being read (Col 3 Lines 5-15).

Regarding claim 9, Tsai discloses said controller adjusting a scan rate based on predetermined right and left intervals with respect to the center of said black patch read through said reading module (Fig 7-8).

Considering claim 11, Tsai teaches the predetermined reference value being set based on a pattern of said black patch (Col 2 Line 64-Col 3 Line 15 and Col 4 Lines 45-56).

For claim 12, it is inherent the apparatus comprises a memory for storing the predetermined value.

Further for claim 13, Tsai teaches comprising a transparent glass on which a document is placed (Col 2 Lines 53-57); it is inherent the apparatus includes a buffer storing an image read through said reading module, with the controller controlling the output of the image stored in the buffer to correct the scanning error (Col 2 Lines 64-Col 3 Lines 15 and Col 4 Lines 45-56).

For claim 14, Tsai teaches said black patch including a center dividing said black patch into two equal patterns, said black patch being symmetric about the center line (Col 3 Lines 5-9).

Regarding claim 21, Tsai teaches when predetermined right and left intervals with respect to the center of said black patch are detected, a scan rate is adjusted based on the result of comparing each of the detected predetermined intervals with a corresponding predetermined value (Col 3 Lines 5-15).

For claim 23, Tsai teaches detecting information of said black patch further comprising of detecting of edge lines of said black patch (Col 3 Lines 5-37).

For claim 24, Tsai discloses detecting information of said black patch further comprising of checking the presence of black and white pixels while moving a reading module of said scanning apparatus (Col 3 Lines 16-37).

Regarding claim 25, Tsai teaches detecting the information of said black patch further comprising of checking whether an interval of said white shading plate between a first edge of said black patch and a second edge of said black patch is detected to have white pixels (Col 3 Lines 16-37).

***Allowable Subject Matter***

4. Claims 4,6-8, 17-18,20,26-27,29-34 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Examiner found neither prior art cited in its entirety nor based on the prior art, found any motivation to combine any of the said prior art which teaches the predetermined value being a number of pixels corresponding to a distance from the top edge line of said black patch to the scan start line, as taught in claim 4,

controller setting a scan region accommodating when the read position of the first pixel read through said reading module is beyond a point set by a predetermined reference value, the point set by the predetermined reference value being the point where the first pixel is read, as taught in claim 6;

controller setting a scan region based on the detection of the top edge line and a bottom edge line of said black patch read through said reading module and an interval by which the reading module is moved from the top edge line to the bottom edge line, as taught in claims 7-8;

when an interval moved by said reading module on said black patch in a vertical direction after detecting a top edge line of said black patch is detected, the scanning error based on a difference detected by comparing the interval with the predetermined reference value, as taught in claims 17-18;

when an interval by which the reading module is moved from a top edge line of said black patch to a bottom edge line of said black patch is detected, as taught in claim 20;

extracting the number of pixels corresponding to an interval said reading module is moved vertically on said black patch, as taught in claims 26-27; comparing the difference between where the first pixel is read and the point where the edge line has been detected to the respective predetermined reference value, as taught in claims 29-30,

detecting information of said black patch further comprising of checking the number of pixels corresponding to an interval the reading module is moved in the vertical direction from the edge line when all edge lines are white pixels, as taught in claims 31-33;

adjusting a scan rate according to the comparison of the information detected of said black patch with the respective predetermined reference value, as taught in claim 34, respectively as set forth in claims 4,6-8, 17-18,20,26-27,29-34, including all of the claims recited therein.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).




A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather D. Gibbs whose telephone number is 571-272-7404. The examiner can normally be reached on M-Thu 8AM-7PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Heather D Gibbs  
Examiner  
Art Unit 2625

hdg



THOMAS P LEE  
PRIMARY EXAMINER